DOCUMENT RESUME

ED 326 663 CE 056 423

AUTHOR Griggs, Mildred Barnes
TITLE Research Priorities and Goals for Vocational Education Personnel Development.
INSTITUTION National Center for Research in Vocational Education, Berkeley, CA.
SPONS AGENCY Office of Vocational and Adult Education (ED), Washington, DC.
PUB DATE Nov 90
CONTRACT V051A80004-89
NOTE 17p.
AVAILABLE FROM National Center for Research in Vocational Education Materials Distribution Service, Horrabin Hall 46, Western Illinois University, Macomb, IL 61455 (Order No. MDS-114, $1.00).
PUB TYPE Viewpoints (120)

EDRS PRICE MF01 Plus Postage. PC Not Available from EDRS.
DESCRIPTORS Delphi Technique; Educational Research; Leadership; Postsecondary Education; *Program Improvement; *Research Needs; *Research Problems; Secondary Education; Surveys; Teacher Certification; *Teacher Education; Vocational Education; *Vocational Education Teachers

ABSTRACT

The purpose of this project was to identify and gain consensus among vocational educators regarding their perceptions of the most critical research goals and the most critical research problem areas in vocational education personnel development. The Delphi technique was used in the three rounds of the survey. The first round requested lists of the five most critical research goals and the five most critical research problem areas. Analyses identified 50 goal statements and 75 problem areas. In the second round of the survey, participants were asked to identify the 10 most critical research goal statements and 12 most critical research problems. Items selected by 75 percent of the participants were on the survey questionnaire in round three. In round three, there was agreement among 90 percent of the 73 participants on the goals and problem areas. The goals were as follows: (1) clarify the mission and goals; (2) determine appropriate requirements for and effective ways to deliver programs; (3) improve the quality of preservice teacher education; (4) improve the quality of inservice teacher education; (5) improve ability to select, recruit, and retain students into vocational teacher education; (6) improve teacher educator preparation; (7) improve ability to serve special populations; (8) determine requirements for teacher certification; (9) improve professionalism of vocational educators; and (10) improve leader development. (13 references) (YLB)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED326663

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☑ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL IN MICROFICHE ONLY HAS BEEN GRANTED BY

P Seidman

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

RESEARCH PRIORITIES AND GOALS FOR VOCATIONAL EDUCATION PERSONNEL DEVELOPMENT

Mildred Barnes Griggs

University of Illinois, Champaign

National Center for Research in Vocational Education
University of California, Berkeley
1995 University Avenue, Suite 375
Berkeley, CA 94704

Supported by
The Office of Vocational and Adult Education,
U.S. Department of Education

November, 1990 MDS-114

CE056423

FUNDING INFORMATION

Project Title:	National Center for Research in Vocational Education
Grant Number:	V051A80004-89
Act under which Funds Administered:	Carl D. Perkins Vocational Education Act P.L. 98-524
Source of Grant:	Office of Vocational and Adult Education U.S. Department of Education Washington, DC 20202
Grantee:	The Regents of the University of California National Center for Research in Vocational Education 1995 University Avenue, Suite 375 Berkeley, CA 94704
Director:	Charles S. Benson
Percent of Total Grant Financed by Federal Money:	100%
Dollar Amount of Federal Funds for Grant:	$5,744,000
Disclaimer:	This publication was prepared pursuant to a grant with the Office of Vocational and Adult Education, U.S. Department of Education. Grantees undertaking such projects under government sponsorship are encouraged to express freely their judgement in professional and technical matters. Points of view or opinions do not, therefore, necessarily represent official U.S. Department of Education position or policy.
Discrimination:	Title VI of the Civil Rights Act of 1964 states: "No person in the United States shall, on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance." Title IX of the Education Amendments of 1972 states: "No person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving federal financial assistance." Therefore, the National Center for Research in Vocational Education project, like every program or activity receiving financial assistance from the U.S. Department of Education, must be operated in compliance with these laws.

RESEARCH PRIORITIES AND GOALS FOR VOCATIONAL EDUCATION PERSONNEL DEVELOPMENT

Much has been written in recent years about the need for reform in teacher education. Proposals for the reform of teacher education have come from state policy boards; national commission or study group reports; teacher educators; and graduates of teacher education programs. Four of the most widely publicized proposals have been "A Call for Change in Teacher Education" (National Commission on Excellence in Teacher Education, 1985); "Improving Teacher Education" (Southern Regional Education Board, 1985); "Tomorrow's Teachers" (Holmes Group, 1986); and "A Nation Prepared" (Carnegie Forum on Education and the Economy, 1986). These reform proposals are based on assumptions about the knowledge base for teaching; how teachers should be socialized and inducted into the profession; standards for the selection of teacher education candidates; criteria for teacher certification; and how new teachers learn to teach. Many of the proposed recommendations are vague and undocumented (Nussel, 1986). They provide general statements about qualitative and quantitative changes that need to be made in teacher education; however, they do not cite evidence to support the claims that the changes they propose will improve the performance of practicing teachers.

The need for reform is argued in several ways. One argument is based on national data on the educational achievement of the nation's youth. America's youth, it is argued, tend not to perform as well as youth from other developed nations on traditional measures of school achievement. A second is the claim that, in many cases, teachers are not well prepared for their roles. A third is that students enrolled in teacher education tend to be less academically talented.

However, after conducting a thorough review of the literature, Lynch and Griggs (1989) concluded that very little empirical information is available on vocational education personnel development or the performance of vocational education personnel. They proposed that systematic, disciplined inquiry be used to guide reform efforts in vocational education because in their view, reform should emerge from a desire to understand and to improve rather than from simply a perceived need to change. Lynch and Griggs indicated that many of the national data bases are not appropriate for determining policies regarding vocational education personnel development because of factors unique to vocational education such as the following:

- The certification of some vocational education teachers requires considerable occupational experience in business and industry.
- The subject matter knowledge base for vocational education teachers is not usually found in disciplines typically located in the arts and sciences or sometimes not even within a university.
- For significant numbers of vocational education teachers, the major fields of college study are not administered in either an education unit or in the arts and sciences.
- Vocational teachers teach a wide range of students from diverse environmental backgrounds in middle schools, high schools, skills centers, vocational-technical institutes, community colleges, and adult education centers.
- Nearly all vocational education teachers sponsor and advise a co-curricular student organization. These organizations are an integral part of the students' vocational education curriculum.
- Many vocational education teachers are not prepared through a college or university teacher education program (p. 25).

The greatest financial impetus for vocational education personnel development has been via federal legislation. The Education Professions Development Act (EPDA) which was enacted in the mid-1960s is an example of such legislation. EPDA, which included previous vocational education personnel development, was designed to achieve the following:

- Develop information on the actual needs for educational personnel, both present and long range.
- Provide a broad range of high quality training and retraining opportunities responsive to the changing manpower needs.
- Attract a greater number of qualified persons into the teaching profession.
- Attract persons who can stimulate creativity in the arts and other skills to undertake short-term or long-term assignments in education.
- Help to make educational personnel training programs more responsive to the needs of schools and colleges (P.L. 90-35).

Title II of EPDA addressed the training and development of teachers and all other vocational education personnel. EPDA was not reauthorized in the Education Amendments of 1976. In essence, this marked the end of federal policy directly tied to the development of vocational education personnel. It was not until the present National Center for

development among its six areas of emphasis that federal funds became available to conduct research on this topic; therefore, little empirical data is currently available on which to base efforts to bring about reform. What is known about the process, product, and knowledge base of vocational education has to be generalized from data collected in other areas of teacher education. An example of that is the current interest in the work of Lee Shulman for its implications for vocational education personnel development (Lynch & Griggs, 1989).

Shulman (1987) states that proponents of professional reform operate on the belief that there exists a knowledge base for teaching—a codifiable aggregation of knowledge, skill, understanding, and technology; of ethics and disposition; and of collective responsibility—as well as a means for representing and communicating it (p. 316). Shulman identified four sources for the knowledge base: (1) scholarship in the content disciplines; (2) the materials and settings of the institutionalized educational process; (3) research on schooling, social organizations, human learning, teaching and development, and the other social and cultural phenomena that affect what teachers can do; and (4) the wisdom of practice itself (pp. 320-321).

That knowledge base, according to Shulman, is not fixed. It is likely to change over time. There are likely to be some aspects that are common across teaching areas and some that are uniquely different given the variations in the clientele being served and the educational needs that are being met. Research is needed to determine the bases for decision making in vocational education personnel development. This was the conclusion reached by the participants at a Symposium on Vocational Teacher Education and the Holmes Group (Griggs, Jones, & Slocum, 1988).

The National Board for Professional Teaching Standards (1989), funded in part by the U.S. Congress, was created to establish standards for what teachers should know and be able to do, to certify teachers who meet those standards, and to advance other education reforms. The Board plans initially to develop standards for twenty teaching fields, five of them being vocational education fields. Research has to be conducted to determine the standards.

What should be the foci of the research? What do people engaged in vocational education personnel development see as the most critical goals for the research, and the most critical problems to be resolved through the research?

Purpose of the Project

The purpose of this project was to identify and gain consensus among vocational educators regarding their perceptions of the most critical research goals and the most critical research problem areas in vocational education personnel development. A goal was defined as the desired outcome of research in vocational education personnel development. A research problem area was defined as a topic that needs to be studied in order to resolve a problem and achieve a goal related to vocational education personnel development.

The results of this project will be instructive to policymakers at the Center and other similar agencies in selecting and funding research projects that will provide a basis for reform. It will inform other researchers of problems in vocational education personnel development that need to be researched so that collectively greater understanding can be derived from empirical evidence regarding reform appropriate for programs in vocational education personnel development. This research can lead to the development of stronger programs in colleges and universities that prepare teachers and provide guidance for inservice education.

Design of the Project

Procedures

The goal of this project was to acquire the informed opinions of experts in vocational education personnel development about what the critical research goals and problem areas are in the field. The Delphi Technique, a variant of survey methodology (Worthen & Sanders, 1987), was the procedure used. The intent was to solicit informed opinions from a panel of experts about the critical research goals and problem areas, force the experts to make judgments about the relative importance of each goal and problem area, and to gain consensus about the most important goals and problem areas.

The Delphi Technique is a means for acquiring information that is not confirmed enough to be classified as knowledge, but at the same time is more reliable than speculation. It was designed to acquire and classify information that can be classified as expert opinion.

The Delphi Technique has the following characteristics:

(1) Confidentiality among the participants, therefore avoiding the possibility of members attributing specific opinions to other members. Members may also change their opinions without publicly acknowledging it.

(2) Group interaction occurs through successive questionnaires. Information is fed back to participants so they are informed of the current status of the group's collective opinions.

(3) The technique relies on the use of experts as participants to provide informed judgments or opinions (Martino, 1983; Weatherman & Swenson, 1974).

Since the goal of this project was to identify the most critical research goals and problem areas in order to focus attention on things that are of ultimate importance, it was determined that the procedure ought to result in a limited number of statements. Based on input from a group of experts who were advisors on this project, an arbitrary number was set. It was arbitrarily determined that the maximum number of *critical* research goal statements be limited to ten and the maximum number of problem areas related to each of the goal statements be limited to twelve. A decision was made to conduct the survey a minimum of three times. None of the goal or problem areas listed in the first survey would be critical unless better than fifty percent of the members of the panel of experts chose them on the two subsequent rounds of the survey. The total number of times (rounds) that the survey was to be conducted was determined as the data was analyzed.

Three rounds of the survey were needed. The first round consisted of the following two requests:

(1) Please list what you believe ought to be the *five* most critical research goals for vocational education personnel development. A research goal is defined as a statement of the outcome of research in vocational education personnel development.

(2) Please list what you consider to be the *five* most critical research problem areas in vocational education personnel development related to the goals stated above. A critical research problem is defined as an area of education that you think needs to

be studied in order to help resolve a significant problem related to vocational education personnel development.

Two examples each were given for a research goal and a problem area. Lined spaces were provided for the responses. Stamped self-addressed envelopes were provided.

Panel of Experts

The experts in vocational education personnel development who participated in this survey were identified via the 1988-89 edition of the Faculty Directory, University Council for Vocational Education (UCVE).[1] They were faculty members at UCVE member institutions who identified themselves in the directory as having research interests or who were engaged in teacher education.

The UCVE represents a select group of research institutions that have among other things, a doctoral program in vocational education and faculty that make worthwhile structural and disciplined contributions in the field of vocational and technical education. The goal of this project was consistent with the purposes of UCVE, therefore, it was assumed that faculty at those institutions would be interested in this project. It was also assumed that due to their education—all had advanced degrees—and experience, they would qualify as experts who had informed opinions about the critical research goals and problem areas in vocational education personnel development.

One hundred and fourteen experts were invited to participate in this project. Ninety-eight participated in round one of the survey, eighty-seven participated in round two, and seventy-eight participated in round three.

Analysis of survey data

In the first survey, the participants were instructed to list what they believed ought to be the five most critical research goals for vocational education personnel development. The ninety-eight participants provided three hundred and twenty-six responses. They were

---

[1] Member institutions of UCVE are Auburn University, Colorado University, North Carolina State University, Ohio State University, Oklahoma State University, Oregon State University, Rutgers University, Southern Illinois University-Carbondale, University of Arkansas, University of Connecticut, University of Georgia, University of Idaho, University of Illinois at Urbana-Champaign, University of Kentucky, University of Maryland-College Park, University of Minnesota, University of Missouri-Columbia, University of Nebraska-Lincoln, University of Tennessee, University of Wyoming, and Virginia Polytechnic Institute and State University.

also instructed to list what they considered to be the five most critical research problem areas in vocational education personnel development and relate each problem area to one or more goal statements. Four hundred and two problem areas were listed.

The content of the goal statements and problem areas was analyzed. The objective of the analysis was to find common themes in the written statements and to find language that captured these themes and their variations (Barritt, Bleeker, Beekman, & Mulderij, 1985).

The content was analyzed and classified independently by themes by two vocational teacher educators. The classifications were checked to assess the degree of agreement between the judgment. There was a high level of agreement.

When the content of the goal statements and problem areas was analyzed and categorized into themes, duplication was eliminated and the number of goal statements was reduced from three hundred and twenty-six to fifty and the number of problem areas was reduced from four hundred and two to seventy-five.

In the second round of the survey, the questionnaire consisted of the critical research goal statements and critical research problem areas. The participants were asked to identify what they considered to be the ten most critical research goal statements and twelve most critical research problem areas on the list. The numbers 1-10 or 1-12 did not denote a rank order. Participants were asked to rate the statements based on their informed opinions; however, no assumptions were made about rank among the ten selected statements. Items that were selected by seventy-five percent of the participants in round two were on the survey questionnaire in round three. In round three, there was agreement among ninety percent of the seventy-three participants on the ten most critical research goals for vocational education personnel development and the twelve most critical research problem areas.

Results of Survey

The items that were agreed upon by the participants as the critical research goals and the critical research problem areas for vocational education personnel development are listed below. There is no significance to the numerical order in which they are presented. There was a consensus of opinion among the experts on these statements.

Goal 1: *Clarify the mission and goals of vocational education personnel development programs in higher education.*

Broad research problem areas:

1. Teaching in school settings
2. Teaching in non-school settings (e.g., business, industry)
3. Areas of vocational education
4. Programs and facilities
5. Philosophical foundations
6. Preparation for teaching occupational skills
7. Integration of vocational and general education
8. Vocational teacher educators
9. Impact of technology

Goal 2: *Determine appropriate requirements for and effective ways to deliver vocational education personnel development programs.*

Broad research problem areas:

1. Program requirements
   a. Subject matter requirements
   b. General education requirements
   c. Education requirements
2. Five year programs
3. Post baccalaureate programs
4. Business/industry/education internships
5. Teacher certification models and requirements
6. Acquisition of subject knowledge through work experience

Goal 3: *Improve the quality of preservice teacher education programs.*

Broad research problem areas:

1. Content of programs (e.g., subject matter, general education, professional education)
2. Field experiences and internships
3. Teaching methods and techniques
4. Education, business, industry relations
5. Leadership development
6. Laboratory and classroom management
7. Critical thinking, problem solving, decision making skills
8. Interpersonal skills
9. Research competence
10. Formation of public policy
11. Model programs

Goal 4: *Improve the quality of inservice teacher education and professional development programs.*

Broad research problem areas:

1. Formal and informal, credit and non-credit programs
2. Frequency and duration
3. Non-degreed teachers
4. Career ladders
5. Instructional leadership and administration
6. Research competence
7. Teaching competence
8. Inservice education and professional development models
9. Professional organizations

Goal 5: ***Improved ability to select, recruit, and retain capable students into vocational teacher education.***

Broad research problem areas:

1. Professional commitment
2. Selection criteria and job characteristics
3. Techniques and model programs
4. Characteristics of effective teachers
5. Minority participation
6. Financial aid
7. Mentoring and other career enhancing relationships

Goal 6: ***Improve the preparation of vocational teacher educators.***

Broad research problem areas:

1. Occupational skill
2. Occupational experience
3. Competencies needed
4. Educational preparation
5. Teaching experience and expertise

Goal 7: ***Improved ability to meet the needs of special populations and provide for race, class and gender equity.***

Broad research problem areas:

1. Adult learners in vocational education
2. Corrections institutions
3. Students with physical, emotional, and/or mental handicaps
4. Sex role stereotyping
5. Race, class, and cultural bias

Goal 8: ***Determine appropriate requirements for initial and continuing teacher certification.***

Broad research problem areas:

1. Requirements and standards
2. Procedures
3. Frequency
4. Provisional status

Goal 9: ***Improved professionalism, professional development, and socialization of vocational educators.***

Broad research problem areas:

1. Socialization of beginning teachers
2. Professional organizations
3. Relations with non-vocational educators in education settings
4. Commitment to profession

Goal 10: ***Improved leader identification, development, and involvement in the formation of public policy.***

Broad research problem areas:

1. Leadership development models
2. Identification of potential leaders
3. Leader qualities and characteristics
4. Mentors and role models
5. Political activism/political process

Implications and Recommendations

The ten statements of critical research goals and the accompanying critical research problem areas represent a consensus of opinion of the sample of educators who participated in this project. The participants were experts in the field of vocational education and their opinions ought to be considered by policymakers and researchers interested in amassing the kind of data needed to inform persons engaged in the reform of vocational education personnel development and related public policy.

It is recommended that the research goals and research problem areas identified in this project be given priority for funding by the Center and other agencies. This input is the opinion of experts in the field about research that is funded under one of the Center's areas of emphasis, the development of personnel in vocational education.

The research problem area statements can be translated into a variety of research questions that will require the use of multiple research paradigms and methods. Quantitative and qualitative approaches to research will be needed to answer the questions that evolve from these statements and to provide sufficient understanding of the issues at which reform efforts are directed.

The development of personnel in vocational education is a national issue. The research that is needed (i.e., experimental, longitudinal, and observation research) will be costly; however, it will enable reform initiatives to emerge from an informed position and therefore be likely to have more positive outcomes than reform that is not based on research. Such research will also provide bases for deciding whether there is a need to re-establish federal legislation similar to EPDA to support vocational education personnel development and, if so, what the focus ought to be.

References

Barritt, L., Beekman, T., Bleeker, H., & Mulderij, K. (1985). *Researching education practice*. Grand Forks, ND: University of North Dakota, Center for Teaching and Learning.

Carnegie Forum on Education and the Economy. (1986). *A nation prepared: Teachers for the 21st century*. New York, NY: Carnegie Corporation.

Griggs, M. B., Jones, R., & Slocum, A. (Eds.). (1988). *Vocational teacher education and the Holmes Group*. Champaign: University of Illinois at Urbana-Champaign, Department of Vocational and Technical Education.

Holmes Group. (1986). *Tomorrow's teachers: A report of the Holmes Group*. East Lansing, MI: Author.

Lynch, R. L., & Griggs, M. B. (1989). *Vocational teacher education: A context for the future*. Berkeley: National Center for Research in Vocational Education, University of California at Berkeley.

Martino, J. (1983). *Technological forecasting for decision making* (2nd Ed.). New York, NY: Elsevier.

National Board for Professional Teaching Standards. (1989). *Toward high and rigorous standards for the teaching profession*. Washington, DC: Author.

National Commission on Excellence in Teacher Education. (1985, March 6). A call for change in teacher education. *The Chronicle of Higher Education*, *30*(1), 13, 14, 16-21.

Nussel, E. J. (1986, September). What the Holmes Group Report doesn't say. *Phi Delta Kappan*, *68*(1), 36-39.

Shulman, L. S. (1987, February). Knowledge and teaching: Foundations of the new reform. *Harvard Educational Review*, *57*(1), 1-22.

Southern Regional Education Board. (1985). *Improving teacher education: An agenda for higher education and the schools*. A report to the Southern Regional Education Board by its Commission for Educational Quality. Atlanta, GA: Author. (ERIC Document Reproduction Service No. ED 261 029)

Weatherman, T. R., & Swenson, K. (1974). Delphi technique. In S. Henchley & J. Yates (Eds.), *Futurism in education*. Berkeley, CA: McGutchan.

Worthen, B. R., & Sanders, J. R. (1987). *Educational evaluation*. New York, NY: Longman.